

## Patent claims

1. An arrangement for a dental replacement component,  
5 for example in the form of all or part of a dental  
bridge, tooth preparation (3), etc., which can be  
given a coloring which matches the area  
surrounding the replacement component (in the  
10 patient's mouth), the replacement component having  
a reinforcing element (4) which comprises carbon  
fiber wires which are arranged in one or more  
carbon fiber hoses and can be held together by  
means of hardenable substance so as to form a  
15 homogeneous part of the reinforcing element,  
characterized in that the carbon fiber part, at  
least in its portion or portions directed toward  
the surrounding area, supports or is provided with  
additional fiber material with a color which  
20 better matches said coloring than does the carbon  
fiber (8).
2. The arrangement as claimed in patent claim 1,  
characterized in that the additional fiber  
material has a tube shape and encloses all or said  
25 portion/portions of the carbon fiber.
3. The arrangement as claimed in patent claim 1 or 2,  
characterized in that the additional fiber  
material (9) is designed not only to cover the  
30 dark color of the carbon fiber, but also to  
increase the stiffness and/or strength of the  
homogeneous carbon fiber part.
4. The arrangement as claimed in patent claim 1, 2 or  
35 3, characterized in that the additional fiber  
material comprises or consists of aluminum oxide  
fibers.
5. The arrangement as claimed in patent claim 4,

characterized in that the additional fiber material is substantially white.

- 5        6.    The arrangement as claimed in any of patent claims 1, 2 or 3, characterized in that the additional fiber material comprises or consists of para-aramid fibers.
- 10       7.    The arrangement as claimed in patent claim 6, characterized in that the additional fiber material is substantially yellow.
- 15       8.    The arrangement as claimed in any of patent claims 1-5, characterized in that the additional fiber material is provided with moisture absorption corresponding to or only slightly exceeding the moisture absorption of the carbon fiber.
- 20       9.    The arrangement as claimed in any of patent claims 1-8, characterized in that the layer or wall thickness of the additional fiber material is 1-5% of the thickness or diameter of the reinforcing element.
- 25       10.   The arrangement as claimed in any of patent claims 1-9, characterized in that carbon fiber hoses with carbon fiber wires are placed in a hose made of the additional fiber material.
- 30       11.   A system for producing a dental replacement component, for example in the form of a dental bridge (3), tooth preparation (10), etc., which can be given a coloring which matches the area surrounding the component, said component having a
- 35       reinforcing element (4) which comprises carbon fiber wires which are arranged in one or more carbon fiber hoses and can be held together by means of hardenable substance so as to form a homogeneous part of the reinforcing element,

characterized in that identification equipment (13) is designed to identify the treatment situation on the patient and to transmit information to computer equipment (15) which, as a function of said information and through interaction with a user (24), is intended to permit display, on screen, of the replacement component and of a reinforcing element included in said component and having a core (8) or inner part of carbon fiber, and fibers (9, 9') completely or partially covering the core or inner part and made of a material, for example aluminum oxide or para-aramid, having a color which better matches said coloring than does the carbon fiber, and in that equipment involving considerable manual input and/or substantially fully automated equipment (PROCERA®) is arranged to take part in production of the reinforcing element on the basis of empirical data concerning the core and the fiber covering this, for example with the aid of data on diameters (D, D1), thicknesses (t), qualities, color, relations between the carbon fiber and the additional fiber, etc.